

Notice of Allowability

Application No.

10/748,230

Examiner

Christopher Verdier

Applicant(s)

KIM ET AL.

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's Amendment dated 4-6-06.
2. ☒ The allowed claim(s) is/are 1-4 and 11-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1-26-06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the Claims:

Claims 5-10 and 21 are canceled.

Claims 5-10 and 21 have been canceled because this application is in condition for allowance except for the presence of claims 5-10 and 21 which are directed to an invention non-elected without traverse. Accordingly, claims 5-10 and 21 are cancelled as set forth in MPEP 821.02.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The instant application is directed towards an unobvious improvement over the invention patented in U.S. Patent 1,919,970. U.S. Patent 1,919,970 discloses an impeller comprising a rotating plate near 43, an outer ring 18 concentrically disposed outside of the rotating plate

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between the outer ring and the rotating plate, and plural blades 24-27 radially arranged such that they are integrally connected at rear ends of the plurality of blades to the rotating plate and the outer ring. Also disclosed is a ring-shaped shroud 11 or 17. The improvement comprises the ring-shaped shroud 11 or 17 being integrally formed with front ends of the plurality of blades. In U.S. Patent 1,919,970, the ring-shaped shroud 11 or 17 is formed as a separate piece which allows for the impeller to be assembled by fitting parts 11, 17, and 18 together, such that the impeller blades 24-27 are received in one-half of the slots 37-40 in shroud 11, vanes 12-15 are received in slots 35 in shroud 17, and vanes 20-23 are received in the other one-half of the slots 37-40 in shroud 11. Vanes 20-23 and impeller blades 24-27 axially abut respective portions of one another to be received in the slots 37-40 in shroud 11. Integrally forming the ring-shaped shroud 11 or 17 with front ends of the plurality of blades 24-27 would not be obvious to a person having ordinary skill in the art, because this would eliminate the need for the various slots that permit the impeller to be assembled. Further, U.S. Patent 1,919,970 teaches away from the claimed invention because column 1, lines 19-27 state that contrary to a die cast unitary structure, the component parts of the impeller are die cast separately in order to allow assembly together to provide a sturdy and rigid construction.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C.V.
June 26, 2006


Christopher Verdier
Primary Examiner
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